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ABSTRACT

Background information to help educators teach about nuclear disarmament is presented. There are six sections. The first section, "Nuclear Arms Education: Avoiding the Final Catastrophe," discusses the national priority of preparing for war, militarism as a value, and the mushroom cloud and spaceship earth as symbols of a global age. The second section, "Nuclear Arms Education and International Understanding," examines peace movement issues, earlier peace education efforts, the American peace movement in the post-World War II era, and increasing support for international studies. Section III, "Nuclear Arms Control: The Issue of the Eighties," deals with peace studies in higher education and the major foundations that support nuclear arms studies. "Teaching about Peace, Arms Control, Disarmament, and International Understanding" is the focus of the fourth section. The role schools should play in nuclear arms education and deciding what to teach are discussed. The fifth section describes human resources, classroom materials, and teacher guides. The concluding section contains an annotated bibliography. (RM)

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Teaching About Nuclear Disarmament

James M. Becker

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Teaching About Nuclear Disarmament

by
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Introduction

One of the most complex and controversial issues in recent years is how to prevent nuclear war while maintaining national security. Reflecting public concerns, U.S. educators recently have begun to consider how best to help students understand the complex issues surrounding nuclear weapons and national security. This development is not surprising. Schools are often instruments of national purpose. They also are often magnets for disputes, attracting those who want to change or preserve traditions or customs. Efforts to educate the public about nuclear arms have been marked by advocacy by groups representing hawks, doves, and nuclear theorists, who offer the schools and citizen groups their particular approaches to preventing nuclear war.

The first nuclear weapons were exploded more than 40 years ago; but with the exception of brief periods in the 1950s and 1960s, the threat posed by the growing number of increasingly sophisticated thermonuclear weapons has gone largely unnoticed until recently. Throughout the early 1980s public concern about these issues has grown. In fact, this decade may become the era during which citizens of the U.S. and of other nations finally confront the threat of nuclear war.

This fastback provides some information about previous peace movements; offers a context in which nuclear arms issues might be viewed as part of education for peace, disarmament, and international understanding; and suggests some guidelines for dealing with this controversial topic.

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Nuclear Arms Education: Avoiding the Final Catastrophe

World War I was known as the "war to end all wars," and at the time millions believed that it would be the final war. During World War II, many people again believed that it would be the last war. For example, the rousing finale of the Irving Berlin musical *This Is the Army* was called "This Time Is the Last Time." The detonation of atomic bombs at Hiroshima and Nagasaki seemed to have signaled the end of the great wars that humanity could survive. The next time the superpowers go to war could well be the final catastrophe, leaving only an uninhabitable wasteland with no world left to fight over.

However, there is widespread belief that the United States and the Soviet Union are stumbling on a collision course toward a nuclear holocaust. The United Nations has estimated that since World War II more than 20 million people have died in about 150 wars, more dead than the number of soldiers killed in World War II. World military expenditures have doubled since 1960 and now are approximately $800 billion a year. More than 100 million people are directly or indirectly employed by defense departments. Governments keep developing and buying increasingly sophisticated weapons to maintain their national security. We seem to be prisoners of our fears, trying to find security in the threat or use of violence.

The arms race continues with new and more sophisticated weapons and seems to be out of control. Thirty years of disarmament efforts in the United Nations and elsewhere have been largely ineffective. In many nations, the notion that a strong military system is the best way to maintain security seems to be more firmly in place than ever.

Offsetting this gloomy picture, there are an increasing number of events and activities all over the globe that provide some hope. Perhaps most important, the leaders of the great powers seem to be more cautious than they were in the pre-atomic-bomb era about risking war to achieve their goals. In addition, research is increasing in such areas as the joint exploration of space; and there are numerous other hopeful signs including mass demonstrations protesting the arms race, cultural exchanges, the resumption of negotiations on nuclear arms, and mutual trade. Religious, civic, and business groups have become politically involved in seeking a halt to the arms race.

It is heartening to see that millions of people want to make known their concern about nuclear weapons. The expression of such concerns may help convince leaders of the contending powers that nuclear war is a common enemy. Thus far, these developments and the outpouring of sentiment may have produced little in the way of tangible results. But they have raised a significant question: What can and should be done to lessen the threat of nuclear war?

Preparation for War: A National Priority

Government budgets are clues to public priorities. There is little doubt we live in a world dominated by preparation for war. Military power is a major concern of many governments. The actions of our political leaders are influenced by real or imagined threats posed by the military buildup of other nations. Many world leaders seem more concerned about the possibilities of war than about the realities of the immediate problems of poverty, hunger, unemployment, illness, illiteracy, and the destruction of the environment. In fact, the international tensions created by these and other problems are used to justify the need for military power.

But only understanding can bring about a lessening of international tensions. As Albert Einstein remarked, "Peace cannot be kept by force. It can only be achieved by understanding." Yet, when compared to their support for military preparedness, most world leaders give little attention or support to efforts to improve international understanding.

Increasing public concern about the growing arsenal of nuclear weapons puts pressure on political leaders to give more careful consideration to the costs and consequences of the continuing arms race. Long-standing commitments to national defense, fear of other nations, as well as dissatisfaction with

the results of previous peace movements, make many U.S. citizens cautious about cutting military spending. Only widespread concern about threats to survival posed by nuclear arms seems sufficient to arouse people to action.

Because the destructive power of nuclear weapons is so horrendous, many believe that political leaders rule out their use. Nonetheless, the risks increase day by day as more sophisticated weapons are developed. There are more than 50,000 nuclear warheads in existence, and more are produced daily. Many of them are attached to delivery systems, poised, targeted, and ready for launch either intentionally or by accident. If a significant number of them fly, this world would be returned to the Stone Age or worse. The only way to survive a nuclear war seems to be to prevent it from ever starting.

The real danger may be that these realities are viewed by many as inevitable, since war and violence have always been a part of human experience. Changing this situation is seen as too complex for human solution. Many people cannot imagine a world in which weapons would not be needed to defend themselves or their nation. From this perspective, reversing the arms race is as much a problem of attitudes, acceptance, and lack of imagination as it is of power politics and political structures.

To the extent that improving this situation is a matter of attitudes, imagination, and lack of information, education has a special role to play. Images and perceptions are the key to motivating people to increase their chances of survival in a nuclear age.

Militarism as a Value

The crucial element in the militarism of many societies may not be the presence of weapons or the size of the military establishment but rather the acceptance in most societies of the belief that authority and dignity are synonymous with military might. Many people believe that the only effective way to deal with other nations with whom they are in competition is to apply force. "Arming against the enemy" leads people to equate dignity with strength and strength with violence.

Thus the support for the military is equated with patriotism; and dissent against military action is seen as unpatriotic, naive, or even treasonous. This notion stems in part from a general distrust of others and the belief that others will not disarm or refrain from violence.

Also, some see a strong relationship between personal identity and national security. The military is seen as preserving the nation, thus providing an opportunity for individuals to be of service to the nation. As a symbol of identity and an opportunity for service, the military serves both individual and public ends.

The drastic change in levels of destructive power during World War II – from horse-drawn artillery in 1939 to the atomic bomb in 1945 – has fundamentally altered the nature of international conflict. The atomic monopoly that the United States enjoyed in 1945 ended rather abruptly in 1949 when the Soviet Union tested its first atomic bomb. Since that time the superpowers have accumulated huge nuclear arsenals with unprecedented destructive power, and the development and construction of nuclear weapons has spread to a number of other countries around the world.

However, these changes have not made war obsolete. They have made the immediacy of war and the need for preparedness more acute. The possibility of massive destruction is never more than a few minutes away, and the role of the military and the need for governmental structures that allow for quick decisions has increased.

Until recent years, there has been only sporadic pressure on national leaders to pursue policies of peace in world affairs. Despite the tragedy and destructiveness of organized violence, wars generally have done only limited damage to local areas for relatively short periods of time. The most destructive wars have occurred in the twentieth century, yet only 4% of all deaths that occurred during this period are attributable to warfare.

The paradox in this development is that the purpose of these vast quantities of weapons is to ensure that war does not take place. Deterrence theorists argue that the purpose of nuclear weapons is not to win wars but to prevent them.

This notion that security can be found through force or the threat of violence has not gone unchallenged. Aurelio Peccei, the founder of the Club of Rome, noted on his deathbed that the institution of war is no more relevant to the modern world than are the institutions of slavery and human sacrifice. He viewed violence and the ideology of violence as "remnants of a past which is no more." Peccei argued that the revolutionary change in the scale of destruction destroys the traditional rationale for promoting national interest through military victory.

Until the advent of thermonuclear weapons, the use of armed force could be rationalized as serving the political ends of the state. But that has changed, for there is no theoretical limit to the destructive power that can be built into a thermonuclear device. Thus there is no conceivable political purpose to be served by nuclear war. Nuclear war destroys the historical connection between military means and political ends. War can no longer be the final arbiter of international disputes.

Yet governments still seek national security and peace through escalating the arms race. These policies are not likely to be changed without grassroots prodding, which in turn is unlikely to occur until more citizens are better informed and more aware of the dangers posed by the continued rapid buildup of nuclear arsenals.

The Mushroom Cloud and Spaceship Earth: Symbols of a Global Age

The mushroom cloud symbolizes the terrifying destructive power of the nuclear bomb. Its control is vital to the future of the human race. It represents a qualitative change in the destructive power available to humankind. Its mere presence imposes a drastically different set of conditions when conflicts arise between nations.

The advent of nuclear weapons is not the only qualitative change that has occurred since World War II. Among recent trends and events that have transformed the world are: the collapse of the colonial system, the proliferation of new nations, the universal spread of industrial modernization, the doubling of the human population in a single generation, various environmental crises, and the rapid increase in a great variety of transnational interactions. Today both man-made and natural global systems are beyond the control of individual nations.

Another major event that has great symbolic value is the exploration of space. The view of Earth from space provides us with a powerful image of the common fate of the inhabitants of planet Earth, "a beautiful blue-green marble in a sea of nothingness." It dramatizes the miracle of life, the interrelated nature of all living things. The images transmitted to us from space flights communicate with a clarity never before achieved that we are all riders on the Spaceship Earth.

From such a perspective, the care and feeding of planet Earth is everyone's most important job. Seeking ways to sustain the miracle of life on Earth would be expected to impel governments toward cooperative and collaborative behavior. The national interest may well be identical with the security of all the peoples and nations on our planet. From this perspective, the mushroom cloud is no longer an acceptable symbol of the way to settle human differences.

From outer space there are no national boundaries, no observable barriers between nations and peoples. All peoples are members of a single species dependent on a life-support system available on only one planet. How these developments and these images shape our attitudes, our behavior toward each other and toward the planet, will determine the future of the human species. The only meaningful scale of security in the modern world is global security.

The resources devoted to fine-tuning powerful weapons of destruction are believed by some to be necessary to protect us from the final catastrophe. The view from the moon and all it symbolizes suggests that avoiding the final catastrophe requires us to accept that the fate of planet Earth and all its inhabitants are irretrievably linked. It further suggests that seeking security through threats and the use of violence is ultimately suicidal.

Nuclear arms education must be placed in this larger context if it is to help us find a way out of the corner into which humanity has painted itself.

The advent of nuclear weapons – with their destructive power – and the exploration of space – with the spectacular view of our fragile planet – may eventually change peoples images and attitudes about the significance of diversity and commonalities of cultures. Meanwhile, we must cope with an often divisive and hostile world in ways that keep alive the hope for a more peaceful and just world.

Nuclear Arms Education and International Understanding

Education can play a key role in changing attitudes. People must think about how best to reduce the burdens and dangers of the current arms race. However, as long as national education systems are seen by political leaders as a means of expanding and preserving national power, it may be unrealistic to expect education to play a major role in reshaping public attitudes toward war.

At the same time, the conviction that education should assist rather than thwart international cooperation and should build a more stable and more just world community has gained considerable support among some political leaders, as well as among the people. In the 1980s it seems that people and governments are at odds on many of the issues involved. Polls in Europe and the United States consistently show that the majority of people believe that there are already too many nuclear weapons, but governments keep building more. Decreasing the likelihood of nuclear war without putting our country at unacceptable risks will require the involvement and support of many of society's institutions and groups – the family, labor unions, farm groups, religious institutions, businesses, schools, and universities.

The growing worldwide concern about the continuing buildup of nuclear weapons could create a better climate for education for peace, disarmament, and international understanding. However, efforts to introduce such curricula are likely to be fraught with psychological and political tensions. Many years of intense technological developments and large-scale investment in the production and deployment of arms make current commitments to the continuing buildup of strategic weapons highly resistant to change. Educating people about the costs and consequences of this nuclear buildup will not be easy.

Traditionally, most Americans have had little interest or knowledge about world affairs. Interest and support for international understanding in the United States has increased and decreased with changes in world and domestic political conditions. As the United States has become more involved in world affairs and the nation's economy has become more enmeshed with that of other nations, an increasingly larger segment of the public has taken an interest in international affairs. As a result, support for the study of international understanding in the schools may also have increased.

The study of other nations, of peoples and cultures, and of international events and processes has increased in times of international tension. However, interest in the study of peace, arms control, and disarmament generally decreased during such times. For example, during the Cold War the emphasis on the study of the Soviet Union and communism increased. The study of other nations of the world, whether viewed as unfriendly or as possible allies, also increased. While some of this interest could hardly be considered supportive of efforts to increase international cooperation or international understanding, it did result in more attention being given to learning about other areas of the world. However, because nationalism, provincial loyalties, and patriotism were heralded as necessary for survival or defense, education that emphasized nonviolence or sought to advance education across national boundaries often was considered radical, visionary, or even treasonous. Under these conditions peace, arms control, and disarmament studies largely disappeared from the curriculum of the public schools.

Even during those times when the study of other nations and cultures has been popular, such education generally has emphasized learning *about* others. Learning *from* other people has never been a prominent American trait. The huge trade imbalances in recent years and the economic successes of the Japanese, Koreans, and Germans may be changing that long-held attitude. Today more people believe that learning from others is not only desirable but also necessary.

Furthermore, the study of our nation's history seems most often to focus on military heroes, victories in wars, and the sacrifices and patriotism accompanying such events. While such individual accomplishments and epic events should not be slighted, they hardly capture all the examples of heroism, dedication, or self-sacrifice that have made this a great nation. Peace also has been a major goal for the United States. The increasing militariza-

tion of American society, especially since World War II, may have caused many people to overlook the valiant efforts of many Americans to achieve peace through nonviolent means.

In a nuclear age, war no longer is a viable arbiter of international conflicts. Thus the study of nonviolent means of resolving conflicts needs to be given greater attention. It is from this perspective that a brief review of some previous peace efforts is presented.

Some Issues in Peace Movements

The shifting patterns of support in the United States for the idea of world peace reflect not only the state of political and economic tensions in the world but also disagreements regarding how to bridge gaps between the ideal and the real. While peace has a popular appeal, a military response often seems the only "realistic" policy in a world of armed and competing nations. While most of the public considers a commitment to peace acceptable, they often consider violence to be necessary for solving international political problems. The people in the peace movement in the United States are different from the rest of American society, not because they advocate peace but because they oppose war.

Many diverse viewpoints exist within the peace movement. While all participants in the movement may oppose militarism, some oppose it more than others. The pacifists, for example, have refused to engage in or prepare for war under any circumstances. Other participants in the movement have considered warfare to be either distasteful or undesirable but at the same time have, on occasion, considered it necessary. The fact that the peace movement has encompassed a range of views and strategies accounts both for its weakness in times of international tension and for its peculiar resiliency.

One of the major problems faced by those who support peace movements is the age-old one of reconciling national loyalty with "superior devotion to things which unite men in common ends, irrespective of national, political boundaries." This problem existed in other forms even before the advent of the nation-state. Harold Lasswell, in a speech given at the 1968 National Council for the Social Studies annual convention, stated the issue: "All men are by birth human. They belong potentially to the nation of man. But at birth all men are absorbed into territorial and pluralistic groups whose members

may deny the claim of the whole community to have the final word in conflicts among lesser entities."

Identity, loyalty, rights, duties, privileges, and obligations have long been associated with membership in various groups; none of these affiliations have been more demanding than those associated with nations. Those who favor reduction in arms are faced with the dilemma, "If I work in the interest of the common good and the survival of humankind, how do I know others also will do so?" Since neither ignorance nor innocence is likely to protect us, it seems essential that we seek out the international facts of life.

Some Earlier Peace Education Efforts

The period from 1900 to beginning of World War I witnessed the greatest efforts in modern history to build a realistic basis for world peace. The cause of world peace was well-organized and very popular in the United States. One writer estimated that the peace movement at that time had 12 million supporters and an annual income of more than one million dollars. In 1910 Andrew Carnegie, a Scottish immigrant, successful businessman, and philanthropist, set aside $10 million to establish the Carnegie Endowment for International Peace to "hasten the abolition of international war."

The American School Peace League was formed in 1909 "to promote, through the schools, and the educational public of America, the interests of international justice and fraternity." The league included 48 state organizations and 100 local organizations. State and local branches provided materials for libraries, furnished speakers for Peace Day programs, and helped schools and colleges organize student organizations. A council of representatives from each state governed the league. In 1912 the National Education Association passed a resolution praising the league for its excellent work in providing accurate materials of interest to children. That same year a federal agency, the United States Bureau of Education, working with teachers' groups and ministries of education in various European countries, played a major role in planning the Peace Day conference at the Hague on May 19. It was held as Europe was on the threshold of war – a time when most Europeans had little interest in education conferences.

Between World War I and World War II, disillusionment about the First World War resulted in numerous antiwar efforts as well as increased support

for activities seeking to improve international understanding. War and the military were under heavy criticism, and discussions of disarmament flourished. The *New Yorker* in 1929 joked, "the Navy is unready for war. . . by an amazing coincidence there is no war ready for the Navy." More than 22,000 different plans for world peace were submitted in one year in the Bok Peace Award Contest. In 1931 a poll of Protestant ministers responded overwhelmingly in favor of the proposition that the church should never again sanction war. Anti-war demonstrations were popular on college campuses.

One of the most vigorous and effective of the groups in the peace movement's militant wing was the National Council for the Prevention of War. It brought together such groups as the American Federation of Teachers, the Young Women's Christian Association, and the National Education Association. It issued a monthly newsletter and sponsored radio programs; and Jeannette Rankin, a former leader in the women's suffrage movement and former member of the House of Representatives, was its well-known lobbyist.

Ironically, the renunciation of war by many Americans coincided with the rise of fascism in Italy and Germany and increasing militarism in Japan. These developments caused segments of the U.S. peace movement to break away. Serious splits developed among various groups within the movement. While staying out of war had great popular appeal before the U.S. entered the war, there were heated public discussions regarding how best to protect U.S. interests and security. As public concern about international tensions increased, public support for peace and disarmament studies waned.

Post-World War II – A Context

The period immediately following World War II was a relatively friendly one for the American peace movement. The pacifist organizations lost their "outlaw" status and began to reorganize. In 1946, the Nobel Peace Prize went to Emily Green Balch of the Women's International League for Peace and Freedom and in 1947 to the American Friends Service Committee. Both groups have played prominent roles in peace movements in the United States.

The friendly atmosphere of the immediate postwar period quickly disappeared with the beginning of the Cold War and the hysteria concerning loyalty and security in the early 1950s. However, by the late Fifties a revival occurred. The immediate occasion for this revival was the atmospheric test-

ing of the H-bomb and public concern for the health hazards of nuclear fallout. This concern was voiced by Adlai Stevenson, the Democratic presidential candidate in 1956, when he suggested halting nuclear weapons tests. Although at that time it was an unpopular political position in a nation committed to the maintenance of military strength, it stimulated much public discussion of the issues involved. The testing questions soon became an important topic of debate, especially among scientists. The Test Ban Treaty of 1963 may have been a result of the scientists' concern and the public support generated by the debates regarding the dangers of nuclear fallout. The brunt of scientific criticism by this time was focused on nuclear weapons and the question of how to avoid the mass slaughter that scientific and technological advances had made possible.

By the late Sixties the protests associated with the Vietnam conflict created a wave of antiwar activism especially among university students. Demonstrations against the military draft, ROTC, and war-related industries were common. At first, public response to student-led protest was often negative. The university often was viewed by the larger public as a sanctuary for opponents of the war. Tensions between so-called hard hats, student activists, and black separatists, to mention but a few, may have undermined any hope of joint antiwar efforts. While the Vietnam War did not create these tensions, it may have exacerbated them. It is generally acknowledged that activism did play a role in bringing an end to the Vietnam War. The antiwar movement faded quickly once the United States withdrew from Vietnam.

Increasing Support for International Studies

Since World War II the federal government and such private foundations as Ford, Rockefeller, and Carnegie contributed millions of dollars to selected colleges and universities to expand research and language training related to Africa, Asia, Latin America, and other regions of the world. In addition, major support from the government and the foundations encouraged programs on particular international issues such as development, arms control, resource use, environmental pollution, and international trade. It should be noted that much of the federal government support was provided under the National Defense Education Act, a measure passed by Congress in response to the Soviet launch of Sputnik, the world's first space satellite. Thus, national security was

the vehicle for establishing the legitimacy of a federal role in international education. Most of the federal and private support for international education was intended to train language and area-study specialists. However, there were considerable amounts of money available for school or community programs on improving international understanding.

The global studies movement in the United States in the 1970s and early 1980s involved a large number of schools, colleges, and civic groups. While there has been little agreement on definitions or goals among the individuals, agencies, and groups participating in this movement, most did agree that it is necessary to learn more about other peoples and cultures and about international issues and processes.

This increased support for global education was a product of the growing recognition among U.S. citizens of the increasingly interrelated nature of local, national, and international political and economic issues. The need for greater understanding of the extent to which U.S. economic well-being and security depended on international trade and cooperation was becoming apparent to more citizens.

While issues relating to peace, arms control, and disarmament may have played some part in the global studies movement of the 1970s, generally such issues as poverty, energy, population, international conflict, trade, and development received significantly more attention. Most of the emphasis was on the study of other cultures and peoples.

Nuclear Arms Control: The Issue of the Eighties

The sudden, rapid expansion of the nuclear freeze movement in the United States in the early 1980s caught most political observers by surprise. Not since the early Sixties, when atomic bomb testing and nuclear fallout was vigorously debated, had there been any significant public expression of concern about nuclear issues. Like the earlier Western European movement for European nuclear disarmament, the number of U.S. supporters for new initiatives to restrict and reduce nuclear arms grew rapidly.

The fact that on 12 June 1982 more than a half million people demonstrated in New York City for nuclear disarmament at the opening of the second United Nations Special Session on Disarmament provides evidence of the wide support for this idea. Another measure is provided by public opinion polls. Louis Harris, director of one of the most respected polling organizations in the United States, says that in 30 years of taking polls on the attitudes of the American people he can recall nothing like the recent "urgent hunger for peace." Among the Harris poll findings: a large majority (86% to 11%) wants the U.S. and the Soviet Union to negotiate a nuclear arms reduction agreement. By 81% to 16%, those polled want the U.S. and the Soviet Union to agree not to produce any new nuclear weapons. Another majority (66% to 31%) think it is immoral for any country to produce more nuclear weapons.

However, Harris cautions that the strong sentiment for nuclear disarmament does not mean that "America has lost the will to defend itself." He emphasizes that "The only kind of agreements people here want are those which are to the mutual advantage of both parties." Harris also believes it would be a mistake for advocates of nuclear disarmament to combine the nuclear war

issues with other international issues. He suggests that support for this issue will be strongest if it remains a straightforward, simple demand to reduce the threat of nuclear weapons.

Further evidence for the widespread support for nuclear disarmament is found in the positions taken by numerous religious groups and political leaders. Among the clergy and laity involved are: the National Council of Churches, the National Conference of Catholic Bishops, Institute for Peace and Justice, and Church Women United. In the spring of 1982 senators Edward Kennedy and Mark Hatfield, backed by 170 members of Congress, introduced a resolution calling for a "mutual and verifiable freeze" to be followed by "deep reductions" of nuclear arms systems. Continuation of efforts to win congressional support for a nuclear freeze include the U.S. Committee Against Nuclear War, chaired by Representative Ed Markey, and the Nuclear Arms Alert Network organized by Common Cause, a nonprofit, nonpartisan citizens' lobbying organization. Private initiatives by such groups as Ground Zero, founded by Roger Molander, a specialist in arms control who worked for the National Security Council under presidents Ford and Carter, and the Committee on National Security, led by Paul Warnke, a former Salt II negotiator, have gained momentum. By June 1982 more than 625 local town meetings or councils in the United States had passed nuclear freeze resolutions. At the time of the November 1982 elections, many more local and state groups took similar action. It is estimated that more than 10 million Americans voted for a nuclear arms freeze on 2 November 1982. The issue was favored in nine out of the ten states that included the resolution on the ballot.

Interest in nuclear disarmament had not subsided at the time of the 1984 elections. Noting that "nothing any American does is as important as contributing to a sound consensus on how to avoid nuclear war," H. R. Swearer, the president of Brown University, announced a joint effort with the Public Agenda Foundation of New York to analyze public opinion and frame choices on nuclear weapons policy. They produced a widely distributed briefing book for the 1984 election titled *Voter Options on Nuclear Arms Policy*. In June 1984 the United Nations Association of the United States of America released the study, "Nuclear Proliferation: Toward Global Restraint." A *USA Today* poll early in 1985 found that a nuclear arms agreement was the second greatest public concern, following the federal deficit.

By early 1985 the business community also was beginning to play a more active role in the nuclear arms debate. Business Executives for National Security was active in more than 25 cities and claimed more than 2,500 members. The founder of the movement, a Los Angeles businessman, stated, "People realize they need to go beyond government to solve this problem." Further indications of concern include a recent survey indicating that more than 150 books dealing with nuclear issues have been published since 1980.

The European peace movements continue to enjoy considerable public support. One example, in 1983 a group consisting of thousands of British women, known as the Gresham Common Peace Force, formed a 14-mile human chain around a U.S. Air Base that is the site for U.S. cruise missiles. The worldwide concern about this issue is further demonstrated by the "New Delhi Declaration" issued early in 1985 by Greece, Sweden, Tanzania, India, Mexico, and Argentina, which called on the U.S. and Soviet Union to stop the nuclear arms race on earth and prevent one from breaking out in space.

The seemingly endless escalation of technologies designed to produce more sophisticated armaments has increased the fear of a new world war. One example is the "star wars" proposals advanced by President Reagan and seen by many Americans as expanding the nuclear arms race into the frontiers of space. This proposal, combined with the dangers of a nuclear winter occurring if any large-scale nuclear detonations were to take place, has further aroused public concerns. The nuclear winter phenomenon was highlighted in a report by a group of distinguished scientists contending that even a limited nuclear war would throw enough smoke and debris into the atmosphere to block the sunlight, reduce temperatures worldwide, and lead to mass extinctions.

Peace Studies in Colleges and Universities

Peace studies have a long tradition in a small number of U.S. colleges and universities. In 1983 the UNESCO World Directory of Peace Research listed 70 institutions in the United States that engage in some type of research or education in this field. The Consortium of Peace, Research, Education and Development listed about 90 peace studies programs in colleges and universities across Canada and United States; many of these are small programs not listed in the UNESCO directory. A number of institutes or seminars on

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the topics of peace and disarmament are sponsored by colleges or universities each summer.

In 1979 the U.S. Arms Control and Disarmament Agency found that fewer than 300 of the 2,000 institutions of higher learning in the United States offered a course in arms control. One 1980 study of course outlines dealing with war, peace, defense, and international relations in major U.S. universities found the term "disarmament" mentioned in only seven courses. More recently, the Federation of American Scientists has published a booklet describing the syllabi of 17 nuclear arms courses.

The Institute for Defense and Disarmament Studies in a directory published in 1983 lists more than 2,000 national peace and peace-related groups. A great many of these groups are located in colleges and are undergraduate or graduate programs. The World Policy Institute, in *Peace and World Order Studies*, a recently published curriculum guide of college-level courses, includes more than 115 examples on such topics as human rights; international violence and peace; and science, technology, and arms control. In addition, the institute makes available a number of working papers on topics such as: "Toward a Dependable Peace," "Making Europe Unconquerable," and "Toward an Alternative Security System." They also have published a textbook, *Toward a Just World Order*, which is used in a number of colleges and universities as a basic reader for courses on global issues.

As an indication of the growth of peace studies movements in the United States in recent years, the editors of *Peace and World Order Studies* note the difference in the number of responses to their surveys seeking syllabi in 1979 and 1983. In 1979 the editor sent out 7,500 questionnaires and received 400 responses; in 1983 the editor sent out 10,000 questionnaires and received 12,000 responses. They conclude that peace studies, like the peace movement, is larger and more serious than ever. They also caution that what becomes challenging is likely to be challenged. The largest peace-time military buildup in history began in 1980 and may have created enough public concern that support for peace studies has increased, thus setting the stage for widespread public debate. These developments suggest that in the mid-1980s there was a dramatic change in the earlier apparent lack of concern among college and university faculty about peace, nuclear arms issues, and international security.

The increasing interest in nuclear arms issues among college and university faculty may have impact on the public's concern about such issues, but at-

tempts to question and change practices and policies already in place are likely to meet with resistance from those responsible for nuclear weapons policies. Individuals at various levels of the power structure often develop strong psychological, political, and economic motivations for maintaining these policies and deny any possibility that they may be on a course that can lead to disaster.

Those who would challenge nuclear arms policies may find it difficult to generate public support for public debates. Many people find it difficult, if not impossible, to cope with the reality of the nuclear threat. They simply deny its existence.

Even among those people who recognize the importance of the nuclear threat, the jargon can be overwhelming. Furthermore, the fact that equally qualified "experts" hold dramatically opposed views on many issues leaves many people bewildered and confused. Many citizens assume that the problem lies beyond their intellectual grasp, and so defer to the experts. John Galbraith has remarked that leaving these issues to individuals who make the horror of nuclear war their everyday occupation is "a reckless, even fatal, delegation of power."

Major Foundations Support Nuclear Arms Studies

The major philanthropic institutions in the United States often focus attention on what their leaders see as major threats or serious gaps in our society. Thus it is significant that the nation's foundations are devoting substantial amounts of time and money to seek ways to slow the arms race and reduce the threat of nuclear war. The Ford Foundation, the Carnegie Corporation, the Rockefeller Brothers Fund, the John D. and Catherine T. MacArthur Foundation, and many smaller philanthropic organizations are financing conferences, research, and scholarships focusing on such topics as the ethics of developing nuclear weapons, the consequences of nuclear conflict, promoting Soviet-U.S. exchange programs, and a variety of other peace and security issues. The Social Science Research Council and the Brookings Institution, two highly respected research organizations, have been recipients of major grants from foundations to support peace studies. Major universities receiving substantial grants include Columbia, Harvard, Stanford, Chicago, Maryland, and Michigan. In addition to supporting universities and research groups,

many foundations contribute to nonprofit groups that seek alternatives to the nuclear arms race. Older organizations such as SANE, Physicians for Social Responsibility, and the World Without War Council have been joined by a rash of newer organizations whose goal is to prevent nuclear war.

The president of the Rockefeller Foundation has stated that "the prevention of nuclear war is going to be to the 80's what civil rights was to the 60's." The president of the MacArthur Foundation remarked that "no issue threatens the collective destiny of humankind like the menacing threat of nuclear war."

This influx of money is strengthening the movement to prevent nuclear war. According to the Forum Institute, by early 1985 there were at least 3,000 national and local groups devoted to the study and prevention of nuclear war. However, not all foundations are supporting efforts to slow the arms race or halt the increase of nuclear weapons. Some foundation executives argue that the Soviets have a superior nuclear arsenal. The Scaife and the Olin foundations are among those that are supporting research and advocacy groups that seek a stronger U.S. military position.

Only a small fraction of the foundation money supporting the study of nuclear arms issues has been given to groups or organizations that provide materials or services developed specifically for use in schools. However, it seems likely that as more research and discussion relating to nuclear arms and security issues occurs, those organizations that work closely with schools and professional education organizations will benefit from the increasing public visibility and the availability of information relating to these issues. It is also likely that some of the materials and teaching strategies developed by the increasing number of colleges that offer courses on nuclear arms and security issues will be adapted for school use.

Teaching About Peace, Arms Control, Disarmament, and International Understanding

The role of the schools in informing children and youth about issues that shift with public opinion is not an easy one. The current outpouring of public concern may create the climate and the context for improved and expanded emphasis on peace, arms control, and disarmament education; and those who advocate education for peace and disarmament may see this favorable turn of events as holding great promise. Nonetheless, the teachers, administrators, and school board members who decide to capitalize on the change in climate may find the situation a very difficult one.

Nuclear Arms Education and the Schools

The increased opportunities in peace and disarmament education must be seen in the more general context of international studies. It is the position of the author that nuclear arms education must be studied in the context of security in a global age. Nuclear arms and national security issues must be viewed from the perspective of the interrelated nature of peoples, nations, and the biosphere that sustains us all. To do otherwise merely perpetuates a narrow, incomplete, and dangerous view of the world that does not square with the realities of the interconnected nature of life on Planet Earth in the last decade of the twentieth century.

At present, an increasing number of schools are expanding their study of other cultures as well as international issues and processes. The impetus, planning, and financial support for peace and disarmament education often do not come from those officially responsible for the elementary and secondary curriculum. As with other efforts to change the curriculum, individuals with-

in the schools are likely to be aided by individuals and resources outside the system.

A host of organizations, agencies, and individuals provide leadership, resources, and materials. Their support takes many forms including 1) sponsorship of conferences and publications, 2) consultants, 3) lists of sources of information, 4) classroom materials, and 5) workshops or conferences for teachers. Whatever range of materials and resources are provided, teachers and students most often receive a package of lessons, activities, and data designed to inform, to raise questions, and to clarify issues. At a minimum, most of these groups offer bibliographies, resource lists, and directories of organizations that provide materials and services to the schools (for a brief list of available classroom materials and organizations offering programs and services to schools, see the Resources).

The climate for dealing with peace and disarmament issues in the schools may be more favorable than it has been for many years. By the mid-1980s there were an increasing number of schools in which social studies teachers as well as other teachers included some emphasis on nuclear issues. Several school districts (for example, Milwaukee; Baltimore; Dade County, Florida; Brookline, Massachusetts; Portland, Oregon; and San Francisco) have encouraged the teaching about nuclear arms issues. The volume of available materials increased substantially during the early Eighties, so much so that selection of materials from the large number now available may be the major problem. However, textbooks, the single most important source of information in most U.S. classrooms, are woefully inadequate in providing information or insights into these issues. Very few of the widely used social studies textbooks deal with disarmament, nuclear issues, or peace; and many of the materials made available through voluntary organizations have not been tested in the classroom. Furthermore, many of the available materials are viewed by educators as being too biased for use by uninformed teachers. For example, two of the larger school districts that have mandated teaching about nuclear arms issues, Milwaukee and Baltimore, have decided to develop their own material. Trying to help students gain a better understanding of the complex issues of nuclear freeze and nuclear arms limitations without adequate background and materials creates the potential for poorly conceived and badly taught courses or units.

Deciding What to Teach

Nuclear arms education raises pedagogical, ethical, and political dilemmas in the classroom. The subject is political and controversial. The decision to teach about nuclear arms is a political decision. It raises questions about the purpose of education. Why should students study nuclear arms issues? Is building awareness merely the first step toward greater activism?

Encouraging informed thinking on nuclear issues is not likely to be successful if it relies solely on giving information and arousing anxiety. Students need to examine the values, beliefs, and attitudes people have about peace and war. Students must be encouraged to look carefully at the variety of beliefs that legitimate and support the arms race.

Textbooks and other sources often imply that the United States always wins wars. The history of the United States is often presented as a procession of military victories. The idea that there could be a war that nobody would win is seldom discussed. Thus, it must appear to many Americans that the arms race is just another race to be won, much as the space race was considered in the 1960s. Providing the facts about nuclear arms and the consequences and costs of the continued buildup of nuclear weapons is an important first step. Teachers and other educators bear a special responsibility to see that these facts are accurately presented, widely shared, and understood.

There is no clearly defined set of issues or concepts that comprise nuclear arms education. No consensus exists regarding what technical-scientific, political, or ethical concerns need to be addressed. Nonetheless, there are areas in which at least some minimum understanding would seem to be a prerequisite for intelligent discussion and action.

For example, there is a need for some mastery of technical information about weapons and their destructive capabilities and effects. Deterrence and the concepts, fallacies, and doctrines associated with it also deserve attention. Many educators also emphasize the need for study about conflict resolution, competition, and cooperation as ways of solving international conflict without the use of nuclear weapons.

Some would argue that it is not the arms race that needs more attention but rather the political and economic conditions that compel nations to acquire arms. They would include teaching about the Soviet Union and other major nuclear powers and teaching about U.S.-Soviet relations and the glob-

al, political, and economic situation in which the nuclear arms race is enmeshed. Some historical perspective on previous conflicts and how they might have been avoided, as well as the sources of current world tensions, is required. For example, studying how the world stumbled into World War II, which Winston Churchill called the most preventable war, may help us to avoid World War III.

Whatever topics or issues are emphasized, it is apparent that we must know more about our own history, technology, decision making, and values as they relate to war and peace. Since these are international issues, the history and culture of other nations also must be discussed.

Students need more than just technical facts; they must also be acquainted with the complexities and processes involved in formulating policy. It is essential that students understand that the process is complicated both by differing frames of reference that individuals bring to such situations and by the inherent contradictory nature of values. That is, policy decisions usually can be both supported and opposed by using basic values. For example, our military intervention in other countries may be defended on the basis of national security and opposed by claims of the right of self-determination. Policy making in a democratic society can be viewed as a continuous process of deciding what mix of values will, at a given point in history, best define the "good society."

Facts, values, and attitudes – all must be confronted. Education should seek to eliminate irrational prejudices that are manifest in many educational materials and practices. Misconceptions, cultural ignorance, and prejudice encourage tolerance for injustice, create obsessive fear of the enemy, and thus lend support to the arms race.

In a nuclear age, education cannot ignore the fact that the human species has a common destiny, that we have more commonalities than differences. Respect for other people, their cultures, civilizations, values, and ways of life is essential to the preservation of the human species and its cultural diversity.

There is evidence of widespread anxiety among young people about the threat of nuclear war. Their knowledge about nuclear arms issues is generally low, but they would like to be better informed. The question of what kind of nuclear arms education is possible for young people that will both protect them from experiencing too much fear and yet take account of their interests and anxieties deserves the attention of all who are concerned about the future

of their nation. It is a special responsibility of those in positions of leadership in the nation's schools and professional education associations.

The issue is not nuclear weapons or the arms race. Rather it is the conditions that threaten human survival. We must learn to live together. Nuclear weapons make apparent the fact of our vulnerability. The use of these weapons would destroy us all. National security is inextricably tied to the security of friend and foe alike. The care and feeding of the planet is everyone's most important job. A major role of education in a nuclear age is to keep alive the hopes for a more peaceful world and to help students to recognize and to create the political and social conditions that make it possible.

Resources

Organizations

The following is a selective list of organizations or agencies with materials or services that are likely to be of interest to educators.

American Security Council Foundation
Boston, VA 22713

An education organization that conducts studies and programs on national defense, and serves as the education arm of the Coalition for Peace Through Strength.

Arms Control Association
11 Dupont Circle NW, Suite 900
Washington, DC 20036

Nonpartisan, national membership organization established to promote better understanding of security issues. National Security in the Nuclear Age, one of its programs, is designed specifically for use in high school social studies courses.

Center for Defense Information
308 Capitol Gallery West
600 Maryland Avenue SW
Washington, DC 20024

A project of the Fund for Peace, the center is a nonpartisan research organization that provides analyses of U.S. military programs for members of Congress and other decision makers, the news media, key opinion leaders, and private individuals.

Consortium on Peace Research, Education and Development
Center for Peaceful Exchange
Kent State University
Kent, OH 44242

A nonprofit organization linking persons and institutions interested in scientific study, action-oriented research, and education on problems of peace and social justice.

Council for a Livable World
11 Beacon Street
Boston, MA 02108

A national group dedicated to the prevention of nuclear war through political activity and public education. The council publishes books and pamphlets and operates a speakers bureau of physicists, chemists, physicians, arms control specialists, and political scientists.

Educators for Social Responsibility
23 Garden Street
Cambridge, MA 02138

A national nonprofit membership organization of teachers and administrators in schools and universities. The organization runs a national resource center that supports teacher training and curriculum development and distributes numerous publications.

Ground Zero
806 15th St. NW
Washington, DC 20005

Provides educational programs on the prevention of nuclear war and publishes occasional books.

Classroom Materials and Teacher Guides

Arms Control and National Security: An Introduction. Washington, D.C.: Arms Control Association, 1985.

A basic text on understanding nuclear weapons, the evolution of military technology, the nature of conflict, and the history of the negotiated peace process. Illustrated with photographs, charts, and graphics.

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The Arms Race: Opposing Viewpoints. David L. Bender. St. Paul, Minn.: Greenhaven Press, 1982. For high school.

For use in the classroom, this book includes excerpts from magazines, journals, books, and newspapers, as well as statements and position papers from a wide variety of individuals and organizations. Discussion activities at the end of each section are designed to develop basic reading and thinking skills. It includes bibliographies, a chronology of the arms race, a glossary, and a list of organizations to contact for more information.

Choices: A Unit on Conflict and Nuclear War. Union of Concerned Scientists in cooperation with the National Education Association and the Massachusetts Teachers Association. Union of Concerned Scientists, 26 Church St., Cambridge, MA 02238. For junior high school.

This two- to four-week curriculum emphasizes conflict resolution, relations between the superpowers, the meaning of national security, and options to reduce the risk of a nuclear war. Some of the topics covered are the effects of the atom bomb on Hiroshima, the dangers of nuclear war, the power of nuclear weapons, the effects of nuclear explosions, and the history of the arms race. The curriculum includes questionnaires, worksheets, handouts and charts, suggestions for homework and creative activities, fact sheets, and teaching notes.

Crossroads: Quality of Life in a Nuclear World. Jobs with Peace Education Task Force, 1983. Jobs with Peace, 77 Summer St., Room 1111, Boston, MA 02110. For high school.

There are three separate curricula for English, science, and social studies classes. Each curriculum is designed for a 10-day unit and examines the effects of the arms race from different perspectives. The objectives of the curricula are to help students evaluate issues and information so they can make educated decisions and to help them overcome feelings of helplessness and powerlessness. *Crossroads* centers on discussion, role playing, brainstorming, and problem solving. It encourages journal writing and supplementary materials to compensate for the brevity of the curricula. Each lesson plan includes many activities, readings, worksheets, and daily homework assignments.

Decisionmaking in a Nuclear Age. Roberta Snow, coordinator. Cambridge, Mass.: Educators for Social Responsibility, 1982. For high school.

This three- to twelve-week curriculum is designed to promote understanding of nuclear weapons and to help students develop the interest, social insights, and decision-making skills for participating in the democratic process.

Dialogue: A Teaching Guide to Nuclear Issues. Shelly Berman and the Boston Area ESR. Cambridge, Mass.: Educators for Social Responsibility, 1983. 250 pp. For grades K to 12.

This manual includes suggestions for ways to introduce nuclear education into schools. It includes sample letters to faculty, superintendents, and school boards; guidelines for ways to talk to young people about nuclear issues and for presenting different points of view; curriculum ideas; an adult study guide; and an annotated bibliography.

Nuclear Arms Education in Secondary Schools. 1985. The Stanley Foundation, 420 East Third Street, Muscatine, Iowa 52761.

This is the report of a conference focusing on guidelines for teaching about nuclear arms issues. Topics include dealing with controversial issues, building a rationale, and clarifying positions on avoiding nuclear war.

Teaching About Conflict, Nuclear War and the Future. John Zola and R. Sieck. Denver: Center for Teaching International Relations, University of Denver, 1984. 200 pp. For grades 7 to 12.

Focuses on understanding the concept of conflict management and conceptualizing issues related to nuclear war. It also includes discussions on societal alternatives for the future.

Why Nuclear Education? A Sourcebook for Educators and Parents. Cambridge, Mass.: Educators for Social Responsibility, 1984.

This handbook provides information about the rationale, methodology, and materials for nuclear arms education. It includes articles on research about the effects of nuclear arms issues on children.

Annotated Bibliography

Allison, Graham T.; Rye, Joseph S.; and Carnesale, Albert. *Owls, Doves and Hawks: An Agenda for Avoiding Nuclear War.* New York: W.W. Norton, 1985.

The authors argue that views of owls, doves, and hawks standing alone could lead to fatal errors. They provide a "cross-path" analysis of roads to nuclear war and a 10-point agenda for preventive action.

Arms Control Association. *National Security and Arms Control: An Introduction.* Washington, D.C.: Arms Control Association, 1985.

A basic primer on the concepts, history, and practice of arms control; national security; U.S.-Soviet relations; nuclear strategy; effects of nuclear war; technology; and verification.

Education and the Threat of Nuclear War. A special issue of *Harvard Educational Review* 54, no. 3 (August 1984).

This collection includes articles by authors from different disciplines, a series of "chronicles" describing the experiences of a wide cross section of practicing teachers who deal with the nuclear threat in their classrooms, and a review of a few curricula formulated to address this complex problem.

Education for Peace and Disarmament: Toward a Living World. A special issue of *Teachers College Record* 84, no. 1 (Fall 1982).

Twenty-three educators and educational theorists, including Elise Boulding, Rene Dubos, Robert K. Musil, Michael J. Nagler, Betty Reardon, Gene Sharp, and Douglas Sloane, address the challenge of teaching about the nuclear threat.

Gottlieb, Sanford. *What About the Russians?* Northfield, Mass.: Student Teacher Organization to Prevent Nuclear War, 1982.

A brief discussion of the characteristics and security interests of the Soviet Union and how the U.S. must cope with the Soviets in the nuclear age.

Gray, Robert, and Sloan, Stanley. *Nuclear Strategy and Arms Control: Challenges for U.S. Policy*. New York: Foreign Policy Association, 1982.

A brief, to-the-point review of contemporary nuclear strategy and arms control issues.

Ground Zero. *Nuclear War: What's in It for You?* New York: Pocket Books, 1982.

An intelligent and easy-to-read overview of the nuclear predicament. Covers the history, development, and physics of nuclear weapons. It includes chapters on the meaning of national security, how a nuclear war might begin, the strategic balance, arms control, outer-space weapons, and nuclear proliferation.

Mayers, Teena. *Understanding Nuclear Weapons and Arms Control*. Washington, D.C.: National Council for the Social Studies, 1984.

A useful supplement to classroom discussions, with clear definitions of important terms.

Nuclear Arms Education. A special issue of *Physics Today* 36, no. 3 (March 1983).

Articles by physicists that provide background information for educating students and the general public about the issues involved in the threat of nuclear war.

Nuclear Education. A special issue of *Journal of College Science Teaching* 12, no. 5 (March/April 1983). National Science Teachers Association, 1742 Connecticut Avenue NW, Washington, DC 20009.

Lengthy feature articles about eight groundbreaking courses around the country, brief summaries of 46 other courses, and reports on the nuclear education activities of the American Association for the Advancement of Science, International Student Pugwash, the Federation of American Scientists, and United Campuses to Prevent Nuclear War.

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